1. Isothermal Recovery of Electrical Resistivity in Cu immediately after Deformation(東京理科大学理学部物理学教室,修士論文アブストラクト(1980年度))

AUTHOR(S):

Matsumoto, Khoji

◦東京理科大学理学部物理学教室

1. Isothermal Recovery of Electrical Resistivity in Cu immediately after Deformation

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2. The Nature of Secondary Defects in Quenched Beta–Brass

   Yukiyoshi Nakane

3. Effect of Helium and Hydrogen Atoms on the Formation of Voids in Quenched Aluminium

   Yumi Morishita

4. Studies of Random Structure by Positron Annihilation

   Takashi Mihara

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Khoji MATSUMOTO

We measured the electric resistance change during recovery of vacancies in copper immediately after deformation. Specimens were elongated by about 10% at various temperatures in the range from –20 to 137°C, and were annealed isothermally at each temperature. The resistivity decreases monotonously in this temperature range except the case of annealing at 115°C. The rate equations modified by our model were used to analyze the experimental results. Comparing the results of calculation with the experimental data, we concluded that the binding energy of a divacancy in Cu is rather larger than 0.1 eV and is close to 0.3 eV.

2. The Nature of Secondary Defects in Quenched Beta-Brass

Yukiyoshi NAKANE